

CLAIMS

112 → 1. Method for drilling or intervening in a well passing through a porous, permeable formation in which a water-based well fluid is circulating in said well, characterized by adding to said fluid, in addition to the conventional ingredients for such a fluid, a maximum of 10 wt.% of a composition obtained by glycerolysis, by 112 direct esterification, or by transesterification from a grease (or an oil) and an alcohol, with the chain lengths of the acid and alcohol parts being chosen such that the ester thus obtained has sufficient dispersion in water, compatibility with said ingredients, does not form an emulsion with the reservoir oil, and adsorbs sufficiently on the porous formation.

112 2. Method according to Claim 1, wherein said grease (or oil) is a vegetable or animal oil, particularly triglycerides, fatty acids, [or equivalent castor oil range], said grease or oil having a chain length between C6 and C22 and preferably between C6 and C12.

3. Method according to one of Claims 1 or 2, wherein said alcohols are diols; thiols, polyols, or mixed polyalkoxides.

112 4. Method according to one of the foregoing claims, wherein said composition is a C8-C10 fatty acid and polyglycerol ester.

112 5. Method according to Claim 4, wherein said polyglycerol has: between 24 and 30% glycerol, preferably 27%, between 28 and 34% diglycerol, preferably 31%; between 20 and 26% triglycerol, preferably 23%, between 9 and 15% tetraglycerol, preferably 12%; and between 4 and 10% pentaglycerol, preferably 7%. 1127

112 6. Method according to one of the foregoing claims, wherein said well fluid has more than 1 g/l of said composition.

112 7. Water-based well fluid having conventional ingredients (such as filtrate reducer, viscosifier, and heavy mineral suspensoid, characterized in that it additionally has a maximum of 10 wt.% of a composition obtained by glycerolysis, or direct esterification, or transesterification from a grease (or an oil) and an alcohol, 112

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with the chain lengths of the acid and alcohol parts being chosen such that the ester thus obtained has sufficient dispersion in water, compatibility with said ingredients, does not form an emulsion with the reservoir oil, and adsorbs sufficiently on the porous formation.

8. Fluid according to Claim 7, wherein said grease (or oil) is vegetable or animal, particularly triglycerides or fatty acids, or equivalent castor oil range, said grease (or oil) having a chain length of between C6 and C22, preferably between C6 and C12, and wherein said alcohols are diols, thiols, polyols, or mixed polyalkoxides.

9. Fluid according to Claim 8, wherein said composition is a C8-C10 fatty acid and polyglycerol ester.

10. Fluid according to Claim 9, wherein said polyglycerol has: between 24 and 30% glycerol, preferably 27%, between 28 and 34% diglycerol, preferably 31%; between 20 and 26% triglycerol, preferably 23%, between 9 and 15% tetraglycerol, preferably 12%; and between 4 and 10% pentaglycerol, preferably 7%.

11. Fluid according to one of Claims 7 to 9 having a maximum of 1 g/l of said composition.

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